

# SPECIFICATION

## The Levitating Shoe

### Page-11 Description

#### **Background Of Invention**

In the world of magic anything is possible, through out history it has provided a key for opening doors to do almost anything that would seem impossible to do. From card and coin tricks to mind bending instruments, they all possess the very required elements of illusion which is a way of tricking the watching eye into believing something that isn't. Levitation the illusion of a person or otherwise floating off the ground has always ranked high in capturing the amazement of the watching eye in the field of magic. Providing the levitating effect of a person rising or floating above the ground is no easy task. Up until now there has been little mechanical means of doing so. Other similar techniques propose

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different effects for different reasons and produce different results for example referring to (US 5655315 ) for a person looking to achieve a higher level of height it is found that by using an inflating air bladder inside the shoes air fed by a pump in the heel pushing the person in an upwards direction produces satisfactory results in achieving the height required. Referring to (US 4873774) for a person looking for safer type of shoes for walking in unsafe conditions it is found using shoes with cleats that extend outward from the bottom of the shoe when air pressure is applied to the cleat chamber inside the shoe makes for a much safer pathway when walking on icy surfaces. Levitation in the world of magical illusion follows down a very different path, trying to create the effect using verbal manipulation (misdirection) and trickery are somewhat hard to do and time consuming. It requires very good balancing and audience misdirection, techniques having disadvantages that make them inefficient.

# **The Levitating Shoe**

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## **Summary Of Invention**

In the world of levitation The Levitating Shoe will stand alone with it's unique new concept mainly consisting of a pair of shoes and manually controlled very light mechanical air distribution system. It will make levitation become a reality for almost anyone who wishes to take up the hobby. The Levitating Shoe will revolutionize the future of levitation for a long time to come.

# The Levitating Shoe

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## **Brief Description Of The Drawings**

Is a manually controlled elevating shoe operated by mechanical means.

**Drawing one** side view showing the location of the cylinder in the shoe, the amount and location of all the air pressure lines, CO2 tank, three way hand control valve, and pre set on line air pressure valves.

**Drawing two** side view showing the location of the air pressure shoe line extending up the leg from the cylinder and the cylinder in the open position with the piston shaft and platform fully extended out from the bottom of the shoe heel.

**Drawing three** front view of the CO2 tank showing its main controls and waist belt with fastener straps used for securing the CO2 tank to the users waist.

**Drawing four** back view showing location of complete shoe assembly when worn by the wearer.

# The Levitating Shoe

## **P-15 (d-drawings - fig-figures)**

### **Detailed Description**

In today's world of illusionary levitation most all techniques largely depend on body positioning and verbal manipulation (misdirection) which must all play an important roll in creating the effect. If one or more of these natural and physical tools are missing the end result could be a complete disaster. I have found that these disadvantages may be overcome by creating a manually controlled, mechanical working, Levitating Shoe. The strategy behind this concept is that it actually lifts the person upwards off the ground through mechanical means, creating a real levitation effect. The Levitating Shoe assembly is manually controlled by a three way pneumatic valve concealed in the hand. Extending from the valve and running up

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the wearers arm are three air lines in which the CO<sub>2</sub> passes. One line is the supply line which comes from the CO<sub>2</sub> tank that is strapped to the wearers waist with a belt and straps, the secondary line or waste (exhaust) line provides for the release of air pressure as the wearer slowly descends to the ground. The third and most important line, the shoe line, leads down the side of the wearer eventually making its way down the pant leg connecting to the air pressure cylinder in the heel of the Levitating Shoe. Activating the three way pneumatic valve in the wearers hand immediately increases the air pressure enabling the cylinder piston shaft and platform to extend out from the heel bottom and downwards towards the ground, lifting the wearer upwards. Upon slow release of the air pressure in combination with the wearer's weight, the cylinder shaft is then forced back into the cylinder (shoe), which allows the wearer to slowly descend to the ground. The Levitating Shoe

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assembly comprised of a two and one half inch by nine inch CO2 supply tank, three (five thirty seconds of an inch) wide polyurethane lines, a hand held three way pneumatic valve, which has an operating pressure range of (0 to 150 psi) and a pair of shoes, one containing a small shoe cylinder custom fitted into the heel, is light weight, very adaptable, easily assembled, and is completely concealed when worn by the user. The Levitating Shoe applies a very different and unique technique, in providing the actual lift that is required to complete the levitation effect. The Levitating Shoe consists of a manually controlled three way pneumatic valve, (drawing 1 fig-7) which when worn is secured to the wearers arm just above the wrist using an elastic strap or wrist band, (drawing 4 fig-5). The hand held three way valve with a easy access, finger controlled, air release button allowing for air pressure increase or decrease (drawing 1 fig-7), has three air lines secured to

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the in and out ports on the valve with the use of tubing clamps to provide a tightly sealed connection. The lines extend from the back side of the valve lead up the wearers arm, and down the wearers back or side. Extending from the top outlet of the nine ounce refillable CO2 supply tank, on the wearers waist to the hand held valve (drawing 3A fig-6), is the air supply line, (drawing 4 fig-8). The CO2 air supply tank which also has a pre set regulator, pressure adjustment, and on and off valve, (drawing 3A fig-1,2,3) is strapped to the wearers waist belt by three fastener straps, which wrap around the tank and waist belt, providing a secure fit of the tank to the wearers waist, (drawing 3B fig-1&2). The shoe line, (drawing 4 fig-9) which also originates from the three way hand held valve located on the wearers lower arm (wrist), extends down below the wearers waist and into the lower pant leg, eventually finding its way into the shoe and connecting to the shoe cylinder air pressure in and out



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port, (drawing 1 fig-20 & drawing 2 fig-10). The shoe cylinder is mounted into the re-constructed shoe heel using a metal cylinder mounting bolt (drawing 1 fig-13) which is attached (secured) to a metal support mounting plate that is mounted and anchored with the use of short mounting screws and adhesive to the inside sole (bottom) of the shoe. The cylinder concealed in the heel of the shoe, (drawing 1 fig-17), consists of a cylindrical (round) shaft and platform, (drawing 2 fig- 6,7,8) which when extended to the ground pushes the wearer upwards creating the lift. The waste (exhaust) line, (drawing 4 fig-10) extending from the hand held valve leading up the persons arm sleeve and wrapping over the back of the persons shoulder, has an inline air speed control valve which is manually pre set. For the wearer to acquire the lift position, activation of the air supply line is required, (drawing 4 fig-8). Maneuvering the button like lever on the three way valve switch in an

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upward position slowly opens the shoe line and air supply line and closes the waste (exhaust) line simultaneously allowing or forcing the air pressure flow out the shoe line and into the shoe cylinder, (drawing 1). Once in the cylinder the air pressure slowly forces the cylinder piston shaft and platform out from the bottom of the shoe heel, which results in producing the lift, (drawing 2 fig-6,7). In performing the levitation and for the wearer to acquire the down position the operation works in reverse. Deactivation of the air supply line is required, (drawing 4 fig-8). Maneuvering the button like lever on the three way valve in a downward position, slowly closes the air supply line and opens the waste (exhaust) line simultaneously, allowing the air flow pressure in the shoe line to decrease by redirecting and exiting out the waste (exhaust) line. There is a pre set in line air speed control valve on the Waste line to allow for slow air line pressure decrease, (drawing 1). As the air

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pressure in the shoe cylinder decreases, the cylinder shaft relinquishes its position back in the shoe cylinder resulting in complete decent.